ELSEVIER

Journal of Computational and Applied Mathematics 120 (2000) 217–233

JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS

www.elsevier.nl/locate/cam

# Author Index Volumes 111–120 (2000)

(For the sake of simplicity and uniformity, all names beginning with articles or prepositions are listed as if written as single words.)

**Abd-el-Malek, M.B.** and **S.M.A. El-Mansi,** Group theoretic methods applied to Burgers' equation **115** (2000) 1– 12
**Abdelkader, Y.H.,** see **Barakat, H.M.** **117** (2000) 85– 90
**Abdellatif, N.,** A mixed stream-function and vorticity formulation for axisymmetric Navier–Stokes equations **117** (2000) 61– 83
**Agarwal, R.P.,** see **Wong, P.J.Y.** **113** (2000) 167–181
**Agarwal, R.P.,** see **Wong, P.J.Y.** **113** (2000) 227–240
**Agarwal, R.P.** and **D. O'Regan,** Existence criteria for operator inclusions in abstract spaces **113** (2000) 183–193
**Agarwal, R.P.** and **D. O'Regan,** Some new results for singular problems with sign changing nonlinearities **113** (2000) 1– 15
**Aguirre Téllez, M.,** The distributional product of Dirac's delta in a hypercone **115** (2000) 13– 21
**Alboul, L., G. Kloosterman, C. Traas** and **R. van Damme,** Best data-dependent triangulations **119** (2000) 1– 12
**Alfeld, P.,** Bivariate spline spaces and minimal determining sets **119** (2000) 13– 27
**Alonso, A., A. Dello Russo** and **V. Vampa,** A posteriori error estimates in finite element acoustic analysis **117** (2000) 105–119
**Alves, C.J.S.,** Numerical simulations on resonance poles — the trapping case of two plane cracks **111** (1999) 267–279
**Amini, S.** and **A. Profit,** Analysis of the truncation errors in the fast multipole method for scattering problems **115** (2000) 23– 33
**Andres, J.** and **B. Krajc,** Bounded solutions in a given set of differential systems **113** (2000) 73– 82
**Androulakis, G.S.,** see **Vrahatis, M.N.** **114** (2000) 367–386
**Angelini, C.** and **D. De Canditiis,** Fourier frequency adaptive regularization for smoothing data **115** (2000) 35– 50
**Anwar, M.N.,** see **Sallam, S.** **115** (2000) 495–502
**Area, I., E. Godoy, F. Marcellán** and **J.J. Moreno-Balcázar,** Inner products involving $q$-differences: the little $q$-Laguerre–Sobolev polynomials **118** (2000) 1– 22

0377-0427/00/$ - see front matter © 2000 Elsevier Science B.V. All rights reserved.
PII: S0377-0427(00)00525-2

**Area, I., E. Godoy, F. Marcellán** and **J.J. Moreno-Balcázar,** Ratio and Plancherel–Rotach asymptotics for Meixner–Sobolev orthogonal polynomials **116** (2000) 63– 75
**Avalos, G.,** Pointwise pressure observations of a canonical structural acoustics model **114** (2000) 121–135
**Avdonin, S.A., N.G. Medhin** and **T.L. Sheronova,** Identification of a piecewise constant coefficient in the beam equation **114** (2000) 11– 21
**Azizi, M., E.M. Daoudi, R. El Hani** and **A. Lakhouaja,** Parallel electromagnetic modelling for the nonlinear electrotechnic systems **115** (2000) 51– 61

**Baía, M.,** see **Sequeira, A.** **111** (1999) 281–295
**Balint, Ş.,** see **Iordan, V.** **111** (1999) 297–303
**Banaś, J., J.R. Rodriguez** and **K. Sadarangani,** On a class of Urysohn–Stieltjes quadratic integral equations and their applications **113** (2000) 35– 50
**Barakat, H.M.** and **Y.H. Abdelkader,** Computing the moments of order statistics from nonidentically distributed Weibull variables **117** (2000) 85– 90
**Barral, P.** and **P. Quintela,** Numerical analysis of a viscoplastic problem with contact condition taking place in an aluminium casting **115** (2000) 63– 86
**Barrio, R.,** Characterization of low degree *A*-stable symmetric RK collocation methods **111** (1999) 1– 11
**Bartels, R.H.** and **F.F. Samavati,** Reversing subdivision rules: local linear conditions and observations on inner products **119** (2000) 29– 67
**Batens, N.** and **R. Van Keer,** A numerical method for a free boundary value problem arising from chemical kinetics **111** (1999) 187–199
**Bauer, I., H.G. Bock, S. Körkel** and **J.P. Schlöder,** Numerical methods for optimum experimental design in DAE systems **120** (2000) 1– 25
**Bavinck, H.,** A note on the Koekoeks' differential equation for generalized Jacobi polynomials **115** (2000) 87– 92
**Bavinck, H.,** Differential operators having Sobolev-type Gegenbauer polynomials as eigenfunctions **118** (2000) 23– 42
**Bavinck, H.** and **H.A. Dieterman,** Closed-form dynamic response of damped mass–spring cascades **114** (2000) 291–303
**Baxley, J.V.** and **J.C. Martin,** Positive solutions of singular nonlinear boundary value problems **113** (2000) 381–399
**Belforte, G., P. Gay** and **G. Monegato,** Some new properties of Chebyshev polynomials (*Letter to the Editor*) **117** (2000) 175–181
**Ben-El-Mechaiekh, H.,** Spaces and maps approximation and fixed points **113** (2000) 283–308
**Berezansky, L.** and **E. Braverman,** On oscillation of a logistic equation with several delays **113** (2000) 255–265
**Berger, A.,** Rigorous error bounds for RK methods in the proof of chaotic behaviour **111** (1999) 13– 24
**Berselli, L.C.** and **F. Saleri,** New substructuring domain decomposition methods for advection–diffusion equations **116** (2000) 201–220

**Betts, J.T.,** Very low-thrust trajectory optimization using a direct SQP method **120** (2000) 27– 40
**Bialecki, B.** and **P. Keast,** A sinc quadrature subroutine for Cauchy principal value integrals **112** (1999) 3– 20
**Biegler, L.T.,** see **Cervantes, A.M.** **120** (2000) 41– 57
**Biehn, N., S.L. Campbell, L. Jay** and **T. Westbrook,** Some comments on DAE theory for IRK methods and trajectory optimization **120** (2000) 109–131
**Bock, H.G.,** see **Bauer, I.** **120** (2000) 1– 25
**Braconnier, T.,** see **Jay, L.O.** **111** (1999) 63– 76
**Braverman, E.,** see **Berezansky, L.** **113** (2000) 255–265
**Brown, B.M., M.S.P. Eastham** and **D.K.R. McCormack,** Resonances and analytic continuation for exponentially decaying Sturm–Liouville potentials **116** (2000) 181–193
**Brugnano, L.,** Blended block BVMS ($B_3$VMs): A family of economical implicit methods for ODES **116** (2000) 41– 62
**Bühring, W.,** Second-order linear differential equations with two irregular singular points of rank three: the characteristic exponent **118** (2000) 43– 69
**Büskens, C.** and **H. Maurer,** SQP-methods for solving optimal control problems with control and state constraints: adjoint variables, sensitivity analysis and real-time control **120** (2000) 85–108

**Cabada, A.** and **J.J. Nieto,** Fixed points and approximate solutions for nonlinear operator equations **113** (2000) 17– 25
**Cabral-Rosetti, L.G.** and **M.A. Sanchis-Lozano,** Generalized hypergeometric functions and the evaluation of scalar one-loop integrals in Feynman diagrams **115** (2000) 93– 99
**Cahlon, B.** and **D. Schmidt,** On stability of systems of delay differential equations **117** (2000) 137–158
**Callebaut, D.K.,** see **Khater, A.H.** **115** (2000) 309–329
**Calvetti, D., L. Reichel, F. Sgallari** and **G. Spaletta,** A regularizing Lanczos iteration method for underdetermined linear systems **115** (2000) 101–120
**Calvo, M., J.I. Montijano** and **S. Gonzalez-Pinto,** On the existence of solution of stage equations in implicit Runge–Kutta methods **111** (1999) 25– 36
**Calvo, M., M.P. Laburta, J.I. Montijano** and **L. Rández,** On the numerical integration of orthogonal flows with Runge–Kutta methods **115** (2000) 121–135
**Campbell, S.L.,** see **Biehn, N.** **120** (2000) 109–131
**Carlson, B.C.** and **J. FitzSimons,** Reduction theorems for elliptic integrands with the square root of two quadratic factors **118** (2000) 71– 85
**Carmo Coimbra, M., C. Sereno** and **A. Rodrigues,** Modelling multicomponent adsorption process by a moving finite element method **115** (2000) 169–179
**Carnicer, J.M.** and **M. Gasca,** Bivariate Hermite–Birkhoff polynomial interpolation with asymptotic conditions **119** (2000) 69– 79
**Carpentier, M.P.,** see **Lima, P.M.** **111** (1999) 173–186

**Caşu, I.,** see **Puta, M.** **111** (1999) 147–152
**Cawood, M.E., V.J. Ervin, W.J. Layton** and **J.M. Maubach,** Adaptive defect correction methods for convection dominated, convection diffusion problems **116** (2000) 1– 21
**Cervantes, A.M.** and **L.T. Biegler,** A stable elemental decomposition for dynamic process optimization **120** (2000) 41– 57
**Chakrabarti, A.** and **Hamsapriye,** On some general hybrid transforms **116** (2000) 157–165
**Chan, C.Y.** and **J. Yang,** Complete blow-up for degenerate semilinear parabolic equations **113** (2000) 353–364
**Chawla, S.** and **S.M. Lenhart,** Application of optimal control theory to bioremediation **114** (2000) 81–102
**Chen, M.-P.** and **K.-K. Tan,** A noncompact generalized quasi-variational inequality **113** (2000) 309–315
**Choi, J.** and **H.M. Srivastava,** Certain classes of series associated with the Zeta function and multiple gamma functions **118** (2000) 87–109
**Colton, D.** and **L. Päivärinta,** Transmission eigenvalues and a problem of Hans Lewy **117** (2000) 91–104
**Conti, C.** and **K. Jetter,** A new subdivision method for bivariate splines on the four-directional mesh **119** (2000) 81– 96
**Cools, R.,** Monomial cubature rules since "Stroud": a compilation — part 2 **112** (1999) 21– 27
**Cuevas, C.** and **M. Pinto,** Asymptotic behavior in Volterra difference systems with unbounded delay **113** (2000) 217–225

**Dæhlen, M., T. Lyche, K. Mørken, R. Schneider** and **H.-P. Seidel,** Multiresolution analysis over triangles, based on quadratic Hermite interpolation **119** (2000) 97–114
**Dai, W., Y. Zhang** and **R. Nassar,** A hybrid finite element-alternating direction implicit method for solving parabolic differential equations on multilayers with irregular geometry **117** (2000) 1– 16
**Daoudi, E.M.,** see **Azizi, M.** **115** (2000) 51– 61
**Dattoli, G.,** Generalized polynomials, operational identities and their applications **118** (2000) 111–123
**Davydov, O., M. Sommer** and **H. Strauss,** Interpolation by bivariate linear splines **119** (2000) 115–131
**De Canditiis, D.,** see **Angelini, C.** **115** (2000) 35– 50
**De Coster, C.** and **P. Habets,** Existence and multiplicity of positive solutions of the Gin zburg–Landau boundary value problem **113** (2000) 317–327
**de Doncker, E., A. Gupta** and **R.R. Zanny,** Large-scale parallel numerical integration **112** (1999) 29– 44
**de Frutos, J.** and **J. Novo,** An enhanced pseudospectral Chebyshev method for dissipative partial differential equations **115** (2000) 137–150
**De Meyer, H.,** see **Van Daele, M.** **111** (1999) 37– 47
**de Oliveira, P.,** see **Santos, J.** **111** (1999) 239–251

**De Schepper, H.** and **R. Van Keer,** A finite element method for elliptic eigenvalue problems in a multi-component domain in 2D with non-local Dirichlet transition conditions **111** (1999) 253–265
**De Schepper, H.** and **R. Van Keer,** On the numerical approximation of some types of nonstandard second-order eigenvalue problems for vector valued functions **115** (2000) 151–167
**Dehesa, J.S.,** see **Sánchez-Ruiz, J.** **118** (2000) 311–322
**Del Buono, N.** and **L. Lopez,** Numerical methods for Hermitian unitary differential systems **111** (1999) 133–145
**Dello Russo, A.,** see **Alonso, A.** **117** (2000) 105–119
**Delves, L.M.,** see **Lyness, J.N.** **112** (1999) 189–200
**Demetriou, M.A.,** see **Fahroo, F.** **114** (2000) 137–158
**Dieterman, H.A,** see **Bavinck, H.** **114** (2000) 291–303
**Diethelm, K.,** A method for the practical evaluation of the Hilbert transform on the real line **112** (1999) 45– 53
**Ding, X.P.** and **C.L. Luo,** Perturbed proximal point algorithms for general quasi-variational-like inclusions **113** (2000) 153–165
**Djidjeli, K.,** see **Duan, Q.** **117** (2000) 121–135
**Dreyer, T., B. Maar** and **V. Schulz,** Multigrid optimization in applications **120** (2000) 67– 84
**Duan, Q., K. Djidjeli, W.G. Price** and **E.H. Twizell,** Weighted rational cubic spline interpolation and its application **117** (2000) 121–135
**Dyn, N.** and **E. Farkhi,** Spline subdivision schemes for convex compact sets **119** (2000) 133–144

**Eastham, M.S.P.,** see **Brown, B.M.** **116** (2000) 181–193
**Egartner, W.,** Working range optimization for turbine and compressor blading **120** (2000) 59– 65
**El Hani, R.,** see **Azizi, M.** **115** (2000) 51– 61
**El-Mansi, S.M.A.,** see **Abd-el-Malek, M.B.** **115** (2000) 1– 12
**Elizalde, E.,** Zeta functions: formulas and applications **118** (2000) 125–142
**Erbe, L., A. Peterson** and **R. Mathsen,** Existence, multiplicity, and nonexistence of positive solutions to a differential equation on a measure chain **113** (2000) 365–380
**Ervin, V.J.,** see **Cawood, M.E.** **116** (2000) 1– 21
**Espelid, T.O.,** see **Singstad, K.** **112** (1999) 291–308
**Evans, G.A.** and **J.R. Webster,** A comparison of some methods for the evaluation of highly oscillatory integrals **112** (1999) 55– 69
**Ezquerro, J.A., M.A. Hernández** and **M.A. Salanova,** A discretization scheme for some conservative problems **115** (2000) 181–192
**Ezquerro, J.A.,** see **Hernández, M.A.** **115** (2000) 245–254
**Ezquerro, J.A.** and **M.A. Hernández,** A modification of the super-Halley method under mild differentiability conditions **114** (2000) 405–409

**Fabiano, R.H.,** Coercive forms associated with elastic systems with damping **114** (2000) 159–171
**Fahroo, F.** and **M.A. Demetriou,** Optimal actuator/sensor location for active noise regulator and tracking control problems **114** (2000) 137–158
**Farkhi, E.,** see **Dyn, N.** **119** (2000) 133–144
**Farouki, R.T.,** Legendre–Bernstein basis transformations **119** (2000) 145–160
**Farto, J.M.,** see **López, D.J.** **111** (1999) 123–132
**Fasshauer, G.E., E.C. Gartland Jr** and **J.W. Jerome,** Algorithms defined by Nash iteration: some implementations via multilevel collocation and smoothing **119** (2000) 161–183
**FitzSimons, J.,** see **Carlson, B.C.** **118** (2000) 71– 85
**Floater, M.S., E.G. Quak** and **M. Reimers,** Filter bank algorithms for piecewise linear prewavelets on arbitrary triangulations **119** (2000) 185–207
**Ford, N.J.,** see **Wulf, V.** **115** (2000) 601–616
**Ford, N.J.** and **V. Wulf,** The use of boundary locus plots in the identification of bifurcation points in numerical approximation of delay differential equations **111** (1999) 153–162
**Furi, M., M.P. Pera** and **M. Spadini,** Forced oscillations on manifolds and multiplicity results for periodically perturbed autonomous systems **113** (2000) 241–254

**Galperin, E.A., E.J. Kansa, A. Makroglou** and **S.A. Nelson,** Variable transformations in the numerical solution of second kind Volterra integral equations with continuous and weakly singular kernels; extensions to Fredholm integral equations **115** (2000) 193–211
**Galué, L., H.G. Khajah** and **S.L. Kalla,** Multiplication theorems for generalized and double-index Bessel functions **118** (2000) 143–150
**Gao, Y.-m.,** see **Kohno, T.** **115** (2000) 349–355
**García-Celayeta, B.,** see **Higueras, I.** **111** (1999) 49– 61
**García-Huidobro, M., R. Manásevich** and **C.S. Yarur,** Existence of positive singular solutions for a class of quasilinear elliptic equations **113** (2000) 329–351
**Gartland Jr, E.C.,** see **Fasshauer, G.E.** **119** (2000) 161–183
**Gasca, M.,** see **Carnicer, J.M.** **119** (2000) 69– 79
**Gay, P.,** see **Belforte, G.** **117** (2000) 175–181
**Genz, A.** and **J. Monahan,** A stochastic algorithm for high-dimensional integrals over unbounded regions with Gaussian weight **112** (1999) 71– 81
**Gerlach, J.,** see **Kalantari, B.** **116** (2000) 195–200
**Gheri, G.** and **P. Marzulli,** Parallel shooting with error estimate for increasing the accuracy **115** (2000) 213–227
**Gill, P.E., L.O. Jay, M.W. Leonard, L.R. Petzold** and **V. Sharma,** An SQP method for the optimal control of large-scale dynamical systems **120** (2000) 197–213

**Glaeske, H.-J., A.A. Kilbas** and **M. Saigo,** A modified Bessel-type integral transform and its compositions with fractional calculus operators on spaces $F_{p,\mu}$ and $F'_{p,\mu}$ **118** (2000) 151–168
**Glasser, M.L.,** Hypergeometric functions and the trinomial equation **118** (2000) 169–173
**Godoy, E.,** see **Area, I.** **116** (2000) 63– 75
**Godoy, E.,** see **Area, I.** **118** (2000) 1– 22
**Golitschek, M.v.,** Norms of projectors onto spaces with Riesz bases **119** (2000) 209–221
**Gonzalez-Pinto, S.,** see **Calvo, M.** **111** (1999) 25– 36
**Goodman, T.N.T.** and **S.L. Lee,** Nonuniform cascade algorithms **119** (2000) 223–234
**Gorenflo, R., Y. Luchko** and **F. Mainardi,** Wright functions as scale-invariant solutions of the diffusion-wave equation **118** (2000) 175–191
**Gorenflo, R.,** see **Mainardi, F.** **118** (2000) 283–299
**Griener, B.** and **H.J. Schmid,** An interactive tool to visualize common zeros of two-dimensional polynomials **112** (1999) 83– 94
**Gugat, M.,** A Newton method for the computation of time-optimal boundary controls of one-dimensional vibrating systems **114** (2000) 103–119
**Gupta, A.,** see **de Doncker, E.** **112** (1999) 29– 44

**Habets, P.,** see **De Coster, C.** **113** (2000) 317–327
**Hähner, P.,** On the uniqueness of the shape of a penetrable, anisotropic obstacle **116** (2000) 167–180
**Hairer, E.** and **G. Wanner,** Stiff differential equations solved by Radau methods **111** (1999) 93–111
**Halidias, N.** and **N.S. Papageorgiou,** Existence of solutions for quasilinear second order differential inclusions with nonlinear boundary conditions **113** (2000) 51– 64
**Hall, G.,** see **Usman, A.** **116** (2000) 105–120
**Hall, G.** and **A. Usman,** Modified order and stepsize strategies in Adams codes **111** (1999) 113–122
**Hamina, M.,** An approximation method for the hypersingular heat operator equation **115** (2000) 229–243
**Hamsapriye,** see **Chakrabarti, A.** **116** (2000) 157–165
**Heo, S.** and **Y. Xu,** Constructing cubature formulae for spheres and balls **112** (1999) 95–119
**Hernández, M.A., M.J. Rubio** and **J.A. Ezquerro,** Secant-like methods for solving nonlinear integral equations of the Hammerstein type **115** (2000) 245–254
**Hernández, M.A.,** see **Ezquerro, J.A.** **114** (2000) 405–409
**Hernández, M.A.,** see **Ezquerro, J.A.** **115** (2000) 181–192
**Higueras, I.,** see **Roldán, T.** **111** (1999) 77– 92
**Higueras, I.** and **B. García-Celayeta,** Runge–Kutta methods for DAEs. A new approach **111** (1999) 49– 61
**Hill, M.** and **I. Robinson,** d2lri: A nonadaptive algorithm for two-dimensional cubature **112** (1999) 121–145

**Hoschek, J.** and **R. Müller,** Turbine blade design by lofted B-spline surfaces **119** (2000) 235–248
**Hounga, C.,** see **Hounkonnou, M.N.** **114** (2000) 361–366
**Hounkonnou, M.N., C. Hounga** and **A. Ronveaux,** Discrete semi-classical orthogonal polynomials: generalized Charlier **114** (2000) 361–366
**Huard, A.** and **V. Robin,** Continuity of approximation by least-squares multivariate Padé approximants **115** (2000) 255–268
**Hureau, J.,** see **Weber, R.** **115** (2000) 577–591

**Ibrahim, R.S.,** see **Khater, A.H.** **115** (2000) 309–329
**Iordan, V.** and **Ş. Balint,** Numerical capturing of some hydrodynamical shocks **111** (1999) 297–303
**Ismail Ali** and **Vu Kim Tuan,** Application of basic hypergeometric series to stable analytic continuation **118** (2000) 193–202
**Ismail, A.I.,** Periodic solutions of equations of motion of a heavy solid applying Krylov–Bogoliubov–Mitropolski method **114** (2000) 345–359

**Jay, L.,** see **Biehn, N.** **120** (2000) 109–131
**Jay, L.O.,** see **Gill, P.E.** **120** (2000) 197–213
**Jay, L.O.** and **T. Braconnier,** A parallelizable preconditioner for the iterative solution of implicit Runge–Kutta-type methods **111** (1999) 63– 76
**Jeon, Y.,** Scalar boundary integral equation formulas for the biharmonic equation — numerical experiments **115** (2000) 269–282
**Jerome, J.W.,** see **Fasshauer, G.E.** **119** (2000) 161–183
**Jetter, K.,** see **Conti, C.** **119** (2000) 81– 96
**Jiang, D.** and **J. Wang,** On boundary value problems for singular second-order functional differential equations **116** (2000) 231–241
**Johnson, R., M. Kamenskii** and **P. Nistri,** Bifurcation and multiplicity results for periodic solutions of a damped wave equation in a thin domain **113** (2000) 123–139
**Jou, J.** and **J.-L. Liu,** An a posteriori finite element error analysis for the Stokes equations **114** (2000) 333–343
**Junghanns, P.** and **K. Müller,** A collocation method for nonlinear Cauchy singular integral equations **115** (2000) 283–300

**Kalantari, B.** and **J. Gerlach,** Newton's method and generation of a determinantal family of iteration functions (*Letter to the Editor*) **116** (2000) 195–200
**Kalla, S.L.,** see **Galué, L.** **118** (2000) 143–150
**Kamenskii, M.,** see **Johnson, R.** **113** (2000) 123–139
**Kananthai, A.,** On the convolution equation related to the $N$-dimensional ultra-hyperbolic operator **115** (2000) 301–308
**Kansa, E.J.,** see **Galperin, E.A.** **115** (2000) 193–211
**Karlsson, P.W.,** Inductance and hypergeometric functions. II **118** (2000) 215–222
**Karlsson, P.W.,** Some formulae for double Clausenian functions **118** (2000) 203–213

**Kassara, K.**, Feedback spreading controls for semilinear parabolic systems **114** (2000) 41– 54
**Keast, P.**, see **Bialecki, B.** **112** (1999) 3– 20
**Khajah, H.G.**, see **Galué, L.** **118** (2000) 143–150
**Khater, A.H., A.B. Shamardan, D.K. Callebaut** and **R.S. Ibrahim,** Chebyshev spectral collocation methods for nonlinear isothermal magnetostatic atmospheres **115** (2000) 309–329
**Kilbas, A.A.**, see **Glaeske, H.-J.** **118** (2000) 151–168
**Kilbas, A.A.** and **J.J. Trujillo,** Computation of fractional integrals via functions of hypergeometric and Bessel type **118** (2000) 223–239
**Kirk, W.A.** and **L.M. Saliga,** Some results on existence and approximation in metric fixed point theory **113** (2000) 141–152
**Kiryakova, V.S.,** Multiple (multiindex) Mittag–Leffler functions and relations to generalized fractional calculus **118** (2000) 241–259
**Kloosterman, G.**, see **Alboul, L.** **119** (2000) 1– 12
**Kobza, J.,** Iterative functional equation $x(x(t)) = f(t)$ with $f(t)$ piecewise linear **115** (2000) 331–347
**Kohno, T., H. Niki, H. Sawami** and **Y.-m. Gao,** An iterative test for $H$-matrix **115** (2000) 349–355
**Körkel, S.**, see **Bauer, I.** **120** (2000) 1– 25
**Kostreva, M.M.** and **A.L. Ward,** Optimal control of a system governed by an elliptic partial differential equation **114** (2000) 173–187
**Kouibia, A.** and **M. Pasadas,** Approximation by discrete variational splines **116** (2000) 145–156
**Kozubowski, T.J.,** Computer simulation of geometric stable distributions **116** (2000) 221–229
**Krajc, B.**, see **Andres, J.** **113** (2000) 73– 82
**Kwon, K.H.** and **G.J. Yoon,** Generalized Hahn's theorem **116** (2000) 243–262
**Kzaz, M.,** Asymptotic expansion of Fourier coefficients associated to functions with low continuity **114** (2000) 217–230

**Laburta, M.P.**, see **Calvo, M.** **115** (2000) 121–135
**Lai, M.-J.,** Convex preserving scattered data interpolation using bivariate $C^1$ cubic splines **119** (2000) 249–258
**Lakhouaja, A.**, see **Azizi, M.** **115** (2000) 51– 61
**Lakshmikantham, V.** and **A.S. Vatsala,** Existence of fixed points of fuzzy mappings via theory of fuzzy differential equations **113** (2000) 195–200
**Lambrinos, J.N.**, see **Vrahatis, M.N.** **114** (2000) 367–386
**Langtry, T.N.,** Lattice rules of minimal and maximal rank with good figures of merit **112** (1999) 147–164
**Lanser, D.** and **J.G. Verwer,** Analysis of operator splitting for advection–diffusion–reaction problems from air pollution modelling **111** (1999) 201–216
**Laurie, D.P.,** Accurate recovery of recursion coefficients from Gaussian quadrature formulas **112** (1999) 165–180

**Laurita, C.,** Condition numbers for singular integral equations in weighted $L^2$ spaces **116** (2000) 23– 40
**Layton, W.J.,** see **Cawood, M.E.** **116** (2000) 1– 21
**Lee, S.L.,** see **Goodman, T.N.T.** **119** (2000) 223–234
**Lenhart, S.M.,** see **Chawla, S.** **114** (2000) 81–102
**Leonard, M.W.,** see **Gill, P.E.** **120** (2000) 197–213
**Leugering, G.,** On the semi-discretization of optimal control problems for networks of elastic strings: global optimality systems and domain decomposition **120** (2000) 133–157
**Levin, D.,** Stable integration rules with scattered integration points **112** (1999) 181–187
**Lima, P.M.** and **M.P. Carpentier,** Iterative methods for a singular boundary-value problem **111** (1999) 173–186
**Liu, J.-L.,** see **Jou, J.** **114** (2000) 333–343
**Liu, K.** and **Z. Liu,** Boundary stabilization of a nonhomogeneous beam with rotatory inertia at the tip **114** (2000) 1– 10
**Liu, W.** and **N. Yan,** A posteriori error estimates for some model boundary control problems **120** (2000) 159–173
**Liu, Z.,** see **Liu, K.** **114** (2000) 1– 10
**López, D.J., P. Martín** and **J.M. Farto,** Generalization of the Störmer method for perturbed oscillators without explicit first derivatives **111** (1999) 123–132
**Lopez, L., C. Mastroserio** and **T. Politi,** Newton-type methods for solving nonlinear equations on quadratic matrix groups **115** (2000) 357–368
**Lopez, L.,** see **Del Buono, N.** **111** (1999) 133–145
**López de Silanes, M.C., M. Pasadas** and **J.J. Torrens,** Construction of curves with parallelism conditions **115** (2000) 369–382
**Lorente-Pardo, J., P. Sablonnière** and **M.C. Serrano-Pérez,** On the convexity of Bézier nets of quadratic Powell–Sabin splines on 12-fold refined triangulations **115** (2000) 383–396
**Lötstedt, P.,** Convergence analysis of iterative methods by pseudodifference operators **115** (2000) 397–417
**Love, E.R.,** Another Fourier-style expansion in series of Legendre functions **118** (2000) 261–282
**Luchko, Y.,** see **Gorenflo, R.** **118** (2000) 175–191
**Lui, S.H.,** Domain decomposition methods for eigenvalue problems **117** (2000) 17– 34
**Luo, C.L.,** see **Ding, X.P.** **113** (2000) 153–165
**Lyche, T.,** see **Dæhlen, M.** **119** (2000) 97–114
**Lyche, T.** and **K. Scherer,** On the $p$-norm condition number of the multivariate triangular Bernstein basis **119** (2000) 259–273
**Lyness, J.N.** and **L.M. Delves,** On the implementation of a modified Sag–Szekeres quadrature method **112** (1999) 189–200

**Maar, B.,** see **Dreyer, T.** **120** (2000) 67– 84
**Magoulas, G.D.,** see **Vrahatis, M.N.** **114** (2000) 367–386
**Mainardi, F.,** see **Gorenflo, R.** **118** (2000) 175–191

**Mainardi, F.** and **R. Gorenflo,** On Mittag-Leffler-type functions in fractional evolution processes **118** (2000) 283–299
**Makroglou, A.,** see **Galperin, E.A.** **115** (2000) 193–211
**Manásevich, R.,** see **García-Huidobro, M.** **113** (2000) 329–351
**Manni, C.,** A general parametric framework for functional tension schemes **119** (2000) 275–300
**Mantica, G.,** On computing Jacobi matrices associated with recurrent and Möbius iterated function systems **115** (2000) 419–431
**Marcellán, F.,** see **Area, I.** **116** (2000) 63– 75
**Marcellán, F.,** see **Area, I.** **118** (2000) 1– 22
**Marchand, R.,** Uniform boundary stabilization of nonlinear spherical shells by using two controls only: analysis and numerical computations **114** (2000) 189–216
**Martín, P.,** see **López, D.J.** **111** (1999) 123–132
**Martínez, A., C. Rodríguez** and **M.E. Vázquez-Méndez,** A control problem arising in the process of waste water purification **114** (2000) 67– 79
**Martin, J.C.,** see **Baxley, J.V.** **113** (2000) 381–399
**Maryška, J., M. Rozložník** and **M. Tůma,** Schur complement reduction in the mixed-hybrid approximation of Darcy's law: rounding error analysis **117** (2000) 159–173
**Marzulli, P.,** see **Gheri, G.** **115** (2000) 213–227
**Maset, S.,** Asymptotic stability in the numerical solution of linear pure delay differential equations as abstract Cauchy problems **111** (1999) 163–172
**Mastronardi, N.** and **D. Occorsio,** The numerical computation of some integrals on the real line **115** (2000) 433–450
**Mastroserio, C.,** see **Lopez, L.** **115** (2000) 357–368
**Mathsen, R.,** see **Erbe, L.** **113** (2000) 365–380
**Matsunaga, N.** and **T. Yamamoto,** Superconvergence of the Shortley–Weller approximation for Dirichlet problems **116** (2000) 263–273
**Maubach, J.M.,** see **Cawood, M.E.** **116** (2000) 1– 21
**Maurer, H.,** see **Büskens, C.** **120** (2000) 85–108
**Maurer, H.,** see **Mittelmann, H.D.** **120** (2000) 175–195
**McCarthy, C.M.,** The optimal design of tubular structures **114** (2000) 55– 66
**McCormack, D.K.R.,** see **Brown, B.M.** **116** (2000) 181–193
**Medhin, N.G.,** see **Avdonin, S.A.** **114** (2000) 11– 21
**Messina, E.,** see **van der Houwen, P.J.** **115** (2000) 547–564
**Micchelli, C.A.** and **P. Olsen,** Penalized maximum-likelihood estimation, the Baum–Welch algorithm, diagonal balancing of symmetric matrices and applications to training acoustic data **119** (2000) 301–331
**Miller, A.R.,** On the critical case of the Weber–Schafheitlin integral and a certain generalization **118** (2000) 301–309
**Mittelmann, H.D.** and **H. Maurer,** Solving elliptic control problems with interior point and SQP methods: control and state constraints **120** (2000) 175–195

**Mohanty, R.K.,** A fourth-order finite difference method for the general one-dimensional nonlinear biharmonic problems of first kind **114** (2000) 275–290
**Monahan, J.,** see **Genz, A.** **112** (1999) 71– 81
**Monegato, G.,** see **Belforte, G.** **117** (2000) 175–181
**Monegato, G.** and **L. Scuderi,** Numerical integration of functions with boundary singularities **112** (1999) 201–214
**Montijano, J.I.,** see **Calvo, M.** **111** (1999) 25– 36
**Montijano, J.I.,** see **Calvo, M.** **115** (2000) 121–135
**Moreno-Balcázar, J.J.,** see **Area, I.** **116** (2000) 63– 75
**Moreno-Balcázar, J.J.,** see **Area, I.** **118** (2000) 1– 22
**Mori, M.,** see **Ooura, T.** **112** (1999) 229–241
**Mørken, K.,** see **Dæhlen, M.** **119** (2000) 97–114
**Mulansky, B.** and **M. Neamtu,** Interpolation and approximation from convex sets. II. Infinite-dimensional interpolation **119** (2000) 333–346
**Müller, K.,** see **Junghanns, P.** **115** (2000) 283–300
**Müller, R.,** see **Hoschek, J.** **119** (2000) 235–248

**Nassar, R.,** see **Dai, W.** **117** (2000) 1– 16
**Neamtu, M.,** see **Mulansky, B.** **119** (2000) 333–346
**Nelson, S.A.,** see **Galperin, E.A.** **115** (2000) 193–211
**Nieto, J.J.,** see **Cabada, A.** **113** (2000) 17– 25
**Niki, H.,** see **Kohno, T.** **115** (2000) 349–355
**Nistri, P.,** see **Johnson, R.** **113** (2000) 123–139
**Novak, E., K. Ritter, R. Schmitt** and **A. Steinbauer,** On an interpolatory method for high dimensional integration **112** (1999) 215–228
**Novo, J.,** see **de Frutos, J.** **115** (2000) 137–150
**Nürnberger, G.** and **F. Zeilfelder,** Interpolation by spline spaces on classes of triangulations **119** (2000) 347–376

**Occorsio, D.,** see **Mastronardi, N.** **115** (2000) 433–450
**Olsen, P.,** see **Micchelli, C.A.** **119** (2000) 301–331
**Ooura, T.** and **M. Mori,** A robust double exponential formula for Fourier-type integrals **112** (1999) 229–241
**O'Regan, D.,** see **Agarwal, R.P.** **113** (2000) 1– 15
**O'Regan, D.,** see **Agarwal, R.P.** **113** (2000) 183–193

**Päivärinta, L.,** see **Colton, D.** **117** (2000) 91–104
**Papageorgiou, N.S.,** see **Halidias, N.** **113** (2000) 51– 64
**Pardo, J.A.,** see **Pardo, M.C.** **116** (2000) 93–104
**Pardo, M.C.** and **J.A. Pardo,** Use of Renyi's divergence to test for the equality of the coefficients of variation **116** (2000) 93–104
**Park, S.,** Acyclic versions of the von Neumann and Nash equilibrium theorems **113** (2000) 83– 91

**Parks, H.R.** and **J.T. Pitts,** Energy estimates for area minimizing hypersurfaces with arbitrary boundaries **115** (2000) 451–460
**Pasadas, M.,** see **Kouibia, A.** **116** (2000) 145–156
**Pasadas, M.,** see **López de Silanes, M.C.** **115** (2000) 369–382
**Patterson, T.N.L.,** Stratified nested and related quadrature rules **112** (1999) 243–251
**Peña, J.M.,** On the foundation of bases of spline spaces **119** (2000) 377–390
**Penski, C.,** A new numerical method for SDEs and its application in circuit simulation **115** (2000) 461–470
**Penzel, F.,** A boundary integral method applied to a convection–diffusion problem **111** (1999) 217–226
**Pera, M.P.,** see **Furi, M.** **113** (2000) 241–254
**Peterson, A.,** see **Erbe, L.** **113** (2000) 365–380
**Petras, K.,** On the computation of the Gauss–Legendre quadrature formula with a given precision **112** (1999) 253–267
**Petzold, L.R.,** see **Gill, P.E.** **120** (2000) 197–213
**Pinto, M.,** see **Cuevas, C.** **113** (2000) 217–225
**Pitts, J.T.,** see **Parks, H.R.** **115** (2000) 451–460
**Politi, T.,** see **Lopez, L.** **115** (2000) 357–368
**Potthast, R.,** Stability estimates and reconstructions in inverse acoustic scatteing using singular sources **114** (2000) 247–274
**Prástaro, A.** and **T.M. Rassias,** A geometric approach of the generalized d'Alembert equation **113** (2000) 93–122
**Precup, R.,** Discrete continuation method for boundary value problems on bounded sets in Banach spaces **113** (2000) 267–281
**Price, W.G.,** see **Duan, Q.** **117** (2000) 121–135
**Profit, A.,** see **Amini, S.** **115** (2000) 23– 33
**Puta, M., I. Caşu** and **A. Voitecovici,** Constant Poisson structures and the weighted Euler integrator **111** (1999) 147–152

**Qiu, Y., D.M. Sloan** and **T. Tang,** Numerical solution of a singularly perturbed two-point boundary value problem using equidistribution: analysis of convergence **116** (2000) 121–143
**Quak, E.G.,** see **Floater, M.S.** **119** (2000) 185–207
**Quintela, P.,** see **Barral, P.** **115** (2000) 63– 86

**Rachůnková, I.,** Existence of two positive solutions of a singular nonlinear periodic boundary value problem **113** (2000) 27– 34
**Radoux, C.,** Addition formulas for polynomials built on classical combinatorial sequences **115** (2000) 471–477
**Rández, L.,** see **Calvo, M.** **115** (2000) 121–135
**Rassias, T.M.,** see **Prástaro, A.** **113** (2000) 93–122
**Reichel, L.,** see **Calvetti, D.** **115** (2000) 101–120
**Reimers, M.,** see **Floater, M.S.** **119** (2000) 185–207

**Remiche, M.-A.,** On the exact distribution of the Isotropic Planar Point Processes of phase type **116** (2000) 77– 91
**Riaza, R.** and **P.J. Zufiria,** Adaptive cellular integration of linearly implicit differential equations **111** (1999) 305–317
**Ricceri , B.,** A general variational principle and some of its applications **113** (2000) 401–410
**Ritter, K.,** see **Novak, E.** **112** (1999) 215–228
**Robbé, M.** and **M. Sadkane,** Discrete-time Lyapunov stability of large matrices **115** (2000) 479–494
**Robin, V.,** see **Huard, A.** **115** (2000) 255–268
**Robinson, I.,** see **Hill, M.** **112** (1999) 121–145
**Rodríguez, C.,** see **Martínez, A.** **114** (2000) 67– 79
**Rodrigues, A.,** see **do Carmo Coimbra, M.** **115** (2000) 169–179
**Rodrigues, J.A.,** Preconditioners for nonconforming domain decomposition methods **111** (1999) 227–237
**Rodriguez, J.R.,** see **Banaś, J.** **113** (2000) 35– 50
**Roldán, T.** and **I. Higueras,** IRK methods for DAE: starting algorithms **111** (1999) 77– 92
**Ronveaux, A.,** see **Hounkonnou, M.N.** **114** (2000) 361–366
**Rost, K.** and **Z. Vavřín,** Rational interpolation and recursive solution of Löwner–Vandermonde systems of equations **114** (2000) 319–331
**Rozložník, M.,** see **Maryška, J.** **117** (2000) 159–173
**Rubio, M.J.,** see **Hernández, M.A.** **115** (2000) 245–254

**Sablonnière, P.,** see **Lorente-Pardo, J.** **115** (2000) 383–396
**Sadarangani, K.,** see **Banaś, J.** **113** (2000) 35– 50
**Sadkane, M.,** see **Robbé, M.** **115** (2000) 479–494
**Saigo, M.,** see **Glaeske, H.-J.** **118** (2000) 151–168
**Salanova, M.A.,** see **Ezquerro, J.A.** **115** (2000) 181–192
**Saleri, F.,** see **Berselli, L.C.** **116** (2000) 201–220
**Saliga, L.M.,** see **Kirk, W.A.** **113** (2000) 141–152
**Sallam, S.** and **M.N. Anwar,** Quintic $C^2$-spline integration methods for solving second-order ordinary initial value problems **115** (2000) 495–502
**Samavati, F.F.,** see **Bartels, R.H.** **119** (2000) 29– 67
**Sanchez, L.,** A note on a nonautonomous O.D.E. related to the Fisher equation **113** (2000) 201–209
**Sánchez-Ruiz, J.** and **J.S. Dehesa,** Entropic integrals of orthogonal hypergeometric polynomials with general supports **118** (2000) 311–322
**Sanchis-Lozano, M.A.,** see **Cabral-Rosetti, L.G.** **115** (2000) 93– 99
**Santos, J.** and **P. de Oliveira,** A converging finite volume scheme for hyperbolic conservation laws with source terms **111** (1999) 239–251
**Sawami, H.,** see **Kohno, T.** **115** (2000) 349–355
**Scherer, K.,** see **Lyche, T.** **119** (2000) 259–273

| | | | |
|---|---|---|---|
| **Schlöder, J.P.,** see **Bauer, I.** | **120** | (2000) | 1– 25 |
| **Schmid, H.J.,** see **Griener, B.** | **112** | (1999) | 83– 94 |
| **Schmidt, D.,** see **Cahlon, B.** | **117** | (2000) | 137–158 |
| **Schmitt, R.,** see **Novak, E.** | **112** | (1999) | 215–228 |
| **Schneider, R.,** see **Dæhlen, M.** | **119** | (2000) | 97–114 |
| **Schropp, J.,** Conserving first integrals under discretization with variable step size integration procedures | **115** | (2000) | 503–517 |
| **Schulz, V.,** see **Dreyer, T.** | **120** | (2000) | 67– 84 |
| **Scuderi, L.,** see **Monegato, G.** | **112** | (1999) | 201–214 |
| **Seidel, H.-P.,** see **Dæhlen, M.** | **119** | (2000) | 97–114 |
| **Sequeira, A.** and **M. Baía,** A finite element approximation for the steady solution of a second-grade fluid model | **111** | (1999) | 281–295 |
| **Sereno, C.,** see **do Carmo Coimbra, M.** | **115** | (2000) | 169–179 |
| **Serrano-Pérez, M.C.,** see **Lorente-Pardo, J.** | **115** | (2000) | 383–396 |
| **Sgallari, F.,** see **Calvetti, D.** | **115** | (2000) | 101–120 |
| **Shamardan, A.B.,** see **Khater, A.H.** | **115** | (2000) | 309–329 |
| **Sharma, V.,** see **Gill, P.E.** | **120** | (2000) | 197–213 |
| **Sheronova, T.L.,** see **Avdonin, S.A.** | **114** | (2000) | 11– 21 |
| **Sidi, A.,** Further convergence and stability results for the generalized Richardson extrapolation process GREP$^{(1)}$ with an application to the $D^{(1)}$-transformation for infinite integrals | **112** | (1999) | 269–290 |
| **Simon, A.,** Some existence results for quasi-linear elliptic problems via the fixed-point theorem of Tarski | **113** | (2000) | 211–216 |
| **Singh, S.P., E. Tarafdar** and **B. Watson,** A generalized fixed point theorem and equilibrium point of an abstract economy | **113** | (2000) | 65– 71 |
| **Singstad, K.** and **T.O. Espelid,** Integrating composed singularities using nonuniform subdivision and extrapolation | **112** | (1999) | 291–308 |
| **Slavova, A.,** Applications of some mathematical methods in the analysis of cellular neural networks | **114** | (2000) | 387–404 |
| **Sloan, D.M.,** see **Qiu, Y.** | **116** | (2000) | 121–143 |
| **Sommeijer, B.P.,** see **van der Houwen, P.J.** | **115** | (2000) | 547–564 |
| **Sommer, M.,** see **Davydov, O.** | **119** | (2000) | 115–131 |
| **Spadini, M.,** see **Furi, M.** | **113** | (2000) | 241–254 |
| **Spaletta, G.,** see **Calvetti, D.** | **115** | (2000) | 101–120 |
| **Srivastava, H.M.,** see **Choi, J.** | **118** | (2000) | 87–109 |
| **Srivastava, H.M.** and **H. Tsumura,** A certain class of rapidly convergent series representations for $\zeta(2n + 1)$ | **118** | (2000) | 323–335 |
| **Steinbauer, A.,** see **Novak, E.** | **112** | (1999) | 215–228 |
| **Strauss, H.,** see **Davydov, O.** | **119** | (2000) | 115–131 |
| **Swann, H.,** On using the cell discretization algorithm for mixed-boundary value problems and domain decomposition | **115** | (2000) | 519–534 |
| **Tan, K.-K.,** see **Chen, M.-P.** | **113** | (2000) | 309–315 |
| **Tang, T.,** see **Qiu, Y.** | **116** | (2000) | 121–143 |

| | | | |
|---|---|---|---|
| **Tarafdar, E.**, see **Singh, S.P.** | **113** | (2000) | 65– 71 |
| **Taşeli, H.**, Accurate numerical bounds for the spectral points of singular Sturm–Liouville problems over $-\infty < x < \infty$ | **115** | (2000) | 535–546 |
| **Taylor, S.W.**, A smoothing property of a hyperbolic system and boundary controllability | **114** | (2000) | 23– 40 |
| **Torrens, J.J.**, see **López de Silanes, M.C.** | **115** | (2000) | 369–382 |
| **Traas, C.**, see **Alboul, L.** | **119** | (2000) | 1– 12 |
| **Trujillo, J.J.**, see **Kilbas, A.A.** | **118** | (2000) | 223–239 |
| **Tsumura, H.**, see **Srivastava, H.M.** | **118** | (2000) | 323–335 |
| **Tůma, M.**, see **Maryška, J.** | **117** | (2000) | 159–173 |
| **Twizell, E.H.**, see **Duan, Q.** | **117** | (2000) | 121–135 |
| **Usman, A.**, see **Hall, G.** | **111** | (1999) | 113–122 |
| **Usman, A.** and **G. Hall**, Alternative stepsize strategies for Adams predictor–corrector codes | **116** | (2000) | 105–120 |
| **Vampa, V.**, see **Alonso, A.** | **117** | (2000) | 105–119 |
| **Van Daele, M., T. Van Hecke, G. Vanden Berghe** and **H. De Meyer**, Deferred correction with mono-implicit Runge–Kutta methods for first-order IVPs | **111** | (1999) | 37– 47 |
| **van Damme, R.**, see **Alboul, L.** | **119** | (2000) | 1– 12 |
| **van der Houwen, P.J., E. Messina** and **B.P. Sommeijer**, Oscillatory Störmer–Cowell methods | **115** | (2000) | 547–564 |
| **van der Houwen, P.J.**, Note on the time integration of 3D advection–reaction equations (*Letter to the Editor*) | **116** | (2000) | 275–278 |
| **Van Hecke, T.**, see **Van Daele, M.** | **111** | (1999) | 37– 47 |
| **Van Keer, R.**, see **Batens, N.** | **111** | (1999) | 187–199 |
| **Van Keer, R.**, see **De Schepper, H.** | **111** | (1999) | 253–265 |
| **Van Keer, R.**, see **De Schepper, H.** | **115** | (2000) | 151–167 |
| **Van der Jeugt, J.**, Hypergeometric series related to the 9-*j* coefficient of $\mathfrak{su}(1,1)$ | **118** | (2000) | 337–351 |
| **Vanden Berghe, G.**, see **Van Daele, M.** | **111** | (1999) | 37– 47 |
| **Vatsala, A.S.**, see **Lakshmikantham, V.** | **113** | (2000) | 195–200 |
| **Vavřín, Z.**, see **Rost, K.** | **114** | (2000) | 319–331 |
| **Vázquez-Méndez, M.E.**, see **Martínez, A.** | **114** | (2000) | 67– 79 |
| **Vecchio, A.**, Stability of backward differentiation formulas for Volterra integro-differential equations | **115** | (2000) | 565–576 |
| **Verwer, J.G.**, see **Lanser, D.** | **111** | (1999) | 201–216 |
| **Voitecovici, A.**, see **Puta, M.** | **111** | (1999) | 147–152 |
| **Vrahatis, M.N., G.S. Androulakis, J.N. Lambrinos** and **G.D. Magoulas**, A class of gradient unconstrained minimization algorithms with adaptive stepsize | **114** | (2000) | 367–386 |
| **Vu Kim Tuan**, see **Ismail Ali**, | **118** | (2000) | 193–202 |

**Wang, J.**, see **Jiang, D.** **116** (2000) 231–241
**Wang, X.**, Improving the rejection sampling method in quasi-Monte Carlo methods **114** (2000) 231–246
**Wanner, G.**, see **Hairer, E.** **111** (1999) 93–111
**Ward, A.L.**, see **Kostreva, M.M.** **114** (2000) 173–187
**Watson, B.**, see **Singh, S.P.** **113** (2000) 65– 71
**Weber, R.** and **J. Hureau**, Numerical solution for various inverse problems **115** (2000) 577–591
**Webster, J.R.**, see **Evans, G.A.** **112** (1999) 55– 69
**Wei, Y.** and **H. Wu**, Convergence properties of Krylov subspace methods for singular linear systems with arbitrary index **114** (2000) 305–318
**Westbrook, T.**, see **Biehn, N.** **120** (2000) 109–131
**Wollman, S.**, The particle method for the Vlasov–Poisson system using equally spaced initial data points **115** (2000) 593–600
**Wong, P.J.Y.** and **R.P. Agarwal**, Eigenvalue theorems for discrete multipoint conjugate boundary value problems **113** (2000) 227–240
**Wong, P.J.Y.** and **R.P. Agarwal**, Fixed-sign solutions of a system of higher order difference equations **113** (2000) 167–181
**Wu, H.**, see **Wei, Y.** **114** (2000) 305–318
**Wulf, V.**, see **Ford, N.J.** **111** (1999) 153–162
**Wulf, V.** and **N.J. Ford**, Numerical Hopf bifurcation for a class of delay differential equations **115** (2000) 601–616

**Xu, Y.**, see **Heo, S.** **112** (1999) 95–119

**Yakubovich, S.B.**, The Titchmarsh integral transformation by the index of a Bessel function **118** (2000) 353–361
**Yamamoto, T.**, see **Matsunaga, N.** **116** (2000) 263–273
**Yan, N.**, see **Liu, W.** **120** (2000) 159–173
**Yang, J.**, see **Chan, C.Y.** **113** (2000) 353–364
**Yarur, C.S.**, see **García-Huidobro, M.** **113** (2000) 329–351
**Yoon, G.J.**, see **Kwon, K.H.** **116** (2000) 243–262

**Zanny, R.R.**, see **de Doncker, E.** **112** (1999) 29– 44
**Zeilfelder, F.**, see **Nürnberger, G.** **119** (2000) 347–376
**Zhang, Y.**, see **Dai, W.** **117** (2000) 1– 16
**Zhu, D.**, Nonmonotonic projected algorithm with both trust region and line search for constrained optimization **117** (2000) 35– 60
**Zufiria, P.J.**, see **Riaza, R.** **111** (1999) 305–317

ELSEVIER

Journal of Computational and Applied Mathematics 120 (2000) 235–253

JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS

www.elsevier.nl/locate/cam

# Subject Index Volumes 111–120 (2000)


| | Vol. | pp. |
|---|---|---|
| 9-$j$ coefficient | 118 | 337 |
| $\eta$-proximal mapping | 113 | 153 |
| A posteriori error analysis | 120 | 159 |
| A posteriori error estimate | 114 | 333 |
| | 117 | 105 |
| A priori error bound | 115 | 181 |
| A priori error bounds | 115 | 245 |
| $A$-stability | 111 | 1 |
| Absolute stability | 115 | 495 |
| Abstract Cauchy problem | 111 | 163 |
| Acoustic wave | 111 | 267 |
| Active noise control | 114 | 137 |
| Acyclic map | 113 | 83 |
| Adaptive finite element methods | 120 | 159 |
| Adaptive mesh-refinement technique | 117 | 105 |
| Adaptive regularization | 115 | 35 |
| Adaptivity | 116 | 1, 121 |
| ADI method | 117 | 1 |
| Adjoint variables | 120 | 85 |
| Advection–diffusion equations | 116 | 201 |
| Advection–diffusion–reaction problems | 111 | 201 |
| Advection–reaction equations | 116 | 275 |
| Airfoil design | 115 | 577 |
| Alexeweisky's theorem | 118 | 87 |
| Algebraic equation | 118 | 169 |
| Algorithms for piecewise linear square roots | 115 | 331 |
| Aliasing errors | 115 | 137 |
| Analytic continuation | 118 | 125, 193 |
| Analytic semigroup | 114 | 159 |
| Anisotropic obstacle | 116 | 167 |
| Appell function | 115 | 93 |


0377-0427/00/$ - see front matter © 2000 Elsevier Science B.V. All rights reserved.
PII: S0377-0427(00)00526-4

| | | |
|---|---|---|
| Approachable set-valued maps | 113 | 283 |
| Approximate selector | 113 | 51 |
| Approximate smoothing | 119 | 161 |
| Approximation | 117 | 121 |
| | 119 | 133 |
| Approximation order | 119 | 81 |
| AR and ANR | 113 | 283 |
| Armijo's method | 114 | 367 |
| Artificial neural network | 114 | 367 |
| Asymptotic boundary value problem | 113 | 73 |
| Asymptotic expansion | 114 | 217 |
| Asymptotic stability | 111 | 163 |
| | 117 | 137 |
| Asymptotics | 116 | 63 |
| Automatic integration | 112 | 121 |
| Axisymmetric domains | 117 | 61 |
| | | |
| *B*-stability | 111 | 49 |
| Backward differentiation formulas | 115 | 565 |
| Ball | 112 | 95 |
| Banach algebra technique | 115 | 283 |
| Banach space | 119 | 223 |
| Basic hypergeometric series | 118 | 193 |
| Basis transformations | 119 | 145 |
| Beam equation | 114 | 11 |
| Berge's theorem | 113 | 83 |
| Bernoulli numbers | 118 | 323 |
| Bernstein basis | 119 | 145 |
| Bernstein polynomials | 115 | 383 |
| Besov space | 116 | 23 |
| Bessel and generalized hypergeometric functions | 118 | 301 |
| Bessel functions | 118 | 353 |
| Bézier nets | 115 | 383 |
| Bézier–Bernstein techniques | 119 | 347 |
| Bifurcation | 113 | 123 |
| Bifurcations | 114 | 387 |
| Bioremediation | 114 | 81 |
| Bivariate splines | 119 | 115, 249, 347 |
| Boundary and distributed control | 120 | 175 |
| Boundary control | 114 | 23, 189 |
| Boundary element methods | 112 | 201 |
| Boundary integral equation | 111 | 217 |
| | 115 | 23 |
| Boundary integral | 115 | 229 |

| | | |
|---|---|---|
| Boundary locus method | 111 | 153 |
| Boundary singularities | 112 | 121, 201 |
| Boundary stabilization | 114 | 1 |
| Boundary value method | 116 | 41 |
| Boundary value problem | 113 | 267 |
| Boundary value problems | 115 | 213 |
| Bounded | 113 | 309 |
| Boundedness in a given set | 113 | 73 |
| Burgers' equation | 115 | 1 |
| | | |
| Caratheodory function | 113 | 51 |
| Cascade algorithm | 119 | 223 |
| Cascade | 114 | 291 |
| Casimirs | 111 | 147 |
| Casting | 115 | 63 |
| Cauchy principal value integral | 112 | 45 |
| Cauchy principal value | 112 | 3 |
| Cauchy singular integral equation | 116 | 23 |
| Cauchy–Hadamard theorem | 118 | 323 |
| Cayley transform | 111 | 133 |
| Cell discretization | 115 | 519 |
| Cell-to-cell mapping | 111 | 305 |
| Chaos | 114 | 387 |
| Characteristic exponent | 118 | 43 |
| Characteristic functions | 117 | 137 |
| Chebyshev polynomials | 117 | 175 |
| Chebyshev series | 114 | 217 |
| Chebyshev spectral and pseudo-spectral methods | 115 | 137 |
| Chebyshev spectral collocation methods | 115 | 309 |
| Chemical reaction kinetics | 120 | 1 |
| Chowla–Selberg formula | 118 | 125 |
| Classical orthogonal polynomials | 118 | 111 |
| Closed map | 113 | 83 |
| CNNs | 114 | 387 |
| (Co)bordism in PDEs | 113 | 93 |
| Coefficient of variation | 116 | 93 |
| Cole–Hopf transformation | 115 | 1 |
| Collocation | 115 | 229 |
| Collocation method | 111 | 1 |
| | 115 | 283, 495 |
| | 116 | 23 |
| Compact embedding | 113 | 51 |
| Compact map | 113 | 83 |
| Complete blow-up | 113 | 353 |

| | | |
|---|---|---|
| Computational air quality modelling | 111 | 201 |
| Computer algebra | 118 | 71 |
| Condition number | 116 | 23 |
| | 119 | 259 |
| Condition numbers | 119 | 145 |
| Conformal mapping | 115 | 577 |
| Conley index theory | 111 | 13 |
| Conservative numerical methods | 111 | 239 |
| Constrained interpolation and approximation | 119 | 333 |
| Constrained interpolation | 117 | 121 |
| Constrained optimization | 114 | 41, 67 |
| | 117 | 35 |
| Continuation | 113 | 267 |
| Continuous and weakly singular | 115 | 193 |
| Contractibility | 113 | 283 |
| Contraction mapping | 113 | 267 |
| Contraction mappings | 113 | 141 |
| Contractivity | 111 | 49 |
| Control and state constraints | 120 | 175 |
| Control-state constraints | 120 | 85 |
| Controllability | 114 | 11 |
| Convection diffusion | 116 | 1 |
| Convection–diffusion | 111 | 217 |
| Convergence analysis | 115 | 245 |
| | 116 | 121 |
| Convergence | 115 | 397 |
| Convergence of multivariate Padé approximant | 115 | 255 |
| Convergence theorem | 114 | 405 |
| | 115 | 181 |
| Convex preserving | 119 | 249 |
| Convex set | 119 | 333 |
| Convex sets | 119 | 133 |
| Convexity | 115 | 383 |
| Coupled partial differential equations | 114 | 121 |
| Crack shape | 111 | 267 |
| Cubature formulae | 112 | 95 |
| Cubature rule | 112 | 21 |
| Cubic spline | 117 | 121 |
| Curvature | 119 | 1 |
| Curve fitting | 115 | 369 |
| Curves | 119 | 29 |
| DA-series | 111 | 77 |
| DAE | 111 | 77 |

| | | |
|---|---|---|
| DAE stability | 120 | 41 |
| Damped elastic systems | 114 | 159 |
| Data-dependent triangulations | 119 | 1 |
| DE-transformation | 112 | 229 |
| Defect correction method | 116 | 1 |
| Deferred correction | 111 | 37 |
| Degenerate semilinear parabolic equations | 113 | 353 |
| Delay differential equation | 111 | 153, 163 |
| Delay differential equations | 115 | 601 |
| Delay | 117 | 137 |
| Determinant | 118 | 125 |
| Determinants of Laplacians | 118 | 87 |
| Difference equation | 114 | 361 |
| Differentiable manifolds | 113 | 241 |
| Differential algebraic equation | 120 | 109 |
| Differential algebraic system | 111 | 49 |
| Differential equation | 115 | 181 |
| Differential equations | 116 | 243 |
| Differential operators | 115 | 87 |
| | 118 | 23 |
| Differential system | 113 | 73 |
| Differential-algebraic equation | 111 | 77 |
| Diffusion-wave equation | 118 | 175 |
| Dilogarithm | 115 | 93 |
| Dirac delta functions | 111 | 239 |
| Dirac-delta distribution | 115 | 301 |
| Direct approach | 120 | 1 |
| Dirichlet problem | 113 | 329 |
| Dirichlet problems | 116 | 263 |
| Dirichlet series | 118 | 323 |
| Discrepancy principle | 115 | 101 |
| Discrete maximum principle | 114 | 173 |
| Discrete orthogonal polynomial | 118 | 337 |
| Discretization techniques | 120 | 175 |
| Dissipative equations | 115 | 137 |
| Domain decomposition | 115 | 519 |
| | 116 | 201 |
| | 117 | 17 |
| | 120 | 109 |
| Domain decomposition methods | 111 | 227 |
| Domain imbedding | 117 | 17 |
| Double exponential formula | 112 | 229 |
| Double-index Bessel functions | 118 | 143 |
| Drazin inverse | 114 | 305 |

| | | |
|---|---|---|
| Dynamic nonlinear spherical shells | 114 | 189 |
| Dynamic optimization | 120 | 41 |
| Dynamics | 114 | 291 |
| | | |
| Effective action | 118 | 125 |
| Eigenfunction expansion | 115 | 535 |
| Eigenvalue approximations | 114 | 189 |
| Eigenvalue bound | 115 | 535 |
| Eigenvalue calculation | 115 | 535 |
| Eigenvalue | 117 | 17 |
| Eigenvalue problem | 111 | 253 |
| | 117 | 105 |
| Eigenvalue problems | 115 | 151 |
| Eigenvalues | 113 | 227 |
| Elastic wave | 111 | 267 |
| Electromagnetic modelling | 115 | 51 |
| Electrotechnic systems | 115 | 51 |
| Elliptic control problems | 120 | 175 |
| Elliptic equations | 114 | 173 |
| Elliptic integrals | 118 | 71 |
| Elliptic partial differential equations | 115 | 519 |
| Entropy-like integrals | 118 | 311 |
| Erdélyi–Kober operators | 118 | 175 |
| Error analysis | 119 | 259 |
| Error bound | 112 | 45 |
| Error estimation | 115 | 213 |
| Euler integrals | 118 | 203 |
| Euler–Maclaurin summation formula | 118 | 87 |
| Existence and uniqueness | 114 | 173 |
| Existence | 116 | 231 |
| Expansion of zero | 118 | 261 |
| Explicit RK method | 111 | 13 |
| Extrapolation | 112 | 291 |
| | | |
| Fast multipole method | 115 | 23 |
| FEM approximation | 111 | 281 |
| Feynman diagram | 115 | 93 |
| Fictitious domain | 115 | 63 |
| | 117 | 17 |
| Filter bank algorithms | 119 | 185 |
| Finite difference method | 114 | 275 |
| Finite difference methods | 116 | 263 |
| Finite element approximation | 120 | 159 |

| | | |
|---|---|---|
| Finite element | 114 | 333 |
| | 116 | 145 |
| Finite element method | 111 | 253 |
| | 115 | 51 |
| | 117 | 105 |
| Finite element methods | 115 | 151 |
| Finite elements | 111 | 227 |
| | 114 | 189 |
| Finite volume methods | 111 | 239 |
| Finite-difference scheme | 111 | 173 |
| Fixed domain transformation | 111 | 187 |
| Fixed point algorithm | 111 | 281 |
| Fixed point | 113 | 267 |
| Fixed points | 113 | 17, 141, 195, 283, 309 |
| | 114 | 41 |
| Fixed-sign solutions | 113 | 167 |
| Fletcher's penalty function | 117 | 35 |
| Foundation | 119 | 377 |
| Four-directional mesh | 119 | 81 |
| Fourier analysis | 114 | 121 |
| | 115 | 397 |
| Fourier series | 115 | 35 |
| Fourier-type integral | 112 | 229 |
| Fox's *H*-functions | 118 | 241 |
| Fractional calculus | 118 | 151 |
| Free boundary problem | 111 | 187 |
| Frequency-domain method | 114 | 1 |
| Functional equations | 115 | 331 |
| Fundamental solution | 115 | 269 |
| Fuzzy differential equations | 113 | 195 |
| | | |
| Galerkin and Galerkin–Petrov scheme | 111 | 217 |
| Gauss-divergence | 115 | 269 |
| Gaussian quadrature | 112 | 253 |
| Gaussian weight | 112 | 71 |
| Gelfond–Leontiev operators | 118 | 241 |
| General quasi-variational-like inclusion | 113 | 153 |
| Generalized Bessel functions | 118 | 143 |
| Generalized cross validation | 115 | 35 |
| Generalized fractional integrals and derivatives | 118 | 241 |
| Generalized hybrid Fourier transforms | 116 | 157 |
| Generalized least-squares solution | 114 | 305 |
| Generalized quasi-variational inequality | 113 | 309 |
| Generation | 111 | 297 |

| | | |
|---|---|---|
| Geometric compound | 116 | 221 |
| Geometry of partial differential equations | 113 | 93 |
| Globally convergent method | 114 | 367 |
| Gradient method | 114 | 367 |
| Group theoretic method | 115 | 1 |
| Growth restriction | 113 | 1 |
| | | |
| *H*-matrix | 115 | 349 |
| Hahn's theorem | 116 | 243 |
| Hamilton–Poisson system | 111 | 147 |
| Harmonic numbers | 118 | 323 |
| Heat conduction | 115 | 229 |
| Heavy tailed distribution | 116 | 221 |
| Hecke's *L*-functions | 118 | 87 |
| Helmholtz equation | 115 | 23 |
| Hermite weight function | 112 | 45 |
| Hermitian integrator | 111 | 133 |
| High-dimensional integral | 112 | 71 |
| Hilbert transform | 112 | 3, 45 |
| | 116 | 157 |
| Historical notes | 111 | 93 |
| Homogeneous functions | 112 | 291 |
| Hopf bifurcation | 111 | 153 |
| | 115 | 601 |
| Hybrid systems | 114 | 81 |
| Hyperbolic conservation laws | 111 | 239 |
| Hyperbolic system | 114 | 23 |
| Hypergeometric functions | 118 | 169 |
| Hypergeometric polynomials | 118 | 311 |
| Hypergeometric *R*-functions | 118 | 71 |
| Hypergeometric series | 115 | 93 |
| | 118 | 337 |
| Hypersingular | 115 | 229 |
| | | |
| Identification | 114 | 11 |
| Ill-posed problem | 115 | 101 |
| Image reconstruction | 115 | 101 |
| Impasse points | 111 | 305 |
| Implicit Runge–Kutta | 120 | 109 |
| Implicit Runge–Kutta method | 111 | 25, 63 |
| Implicit Runge–Kutta methods | 111 | 93 |
| | 115 | 121 |
| Index | 114 | 305 |
| Inductance | 118 | 215 |

| | | |
|---|---|---|
| Inexact simplified Newton iteration | 111 | 63 |
| Infinite domain | 112 | 121 |
| Infinite wall | 115 | 577 |
| Information entropy | 118 | 311 |
| Initial value problem | 111 | 25 |
| Initial value problems | 115 | 121 |
| Integral equations | 115 | 245 |
| Integral manifolds and Cartan forms | 113 | 93 |
| Integral tables | 118 | 71 |
| Integrals and derivatives of fractional order | 118 | 283 |
| Integro-differential equations | 115 | 565 |
| | 118 | 283 |
| Interior point optimization methods | 120 | 175 |
| Internal numerical differentiation | 120 | 1 |
| Interpolation | 117 | 175 |
| | 119 | 115, 275, 347 |
| Inverse problems | 114 | 11 |
| Inverse scattering | 116 | 167 |
| Irregular geometry | 117 | 1 |
| Irregular singular point | 118 | 43 |
| Isothermal magnetostatic atmospheres | 115 | 309 |
| Iterated function systems | 115 | 419 |
| Iterative approximation | 113 | 267 |
| Iterative method | 111 | 63 |
| | 115 | 397 |
| Iterative methods | 117 | 159 |
| Iterative scheme | 111 | 77 |
| Iterative solution of linear systems | 116 | 41 |
| Jacobi matrices | 115 | 419 |
| Jacobi polynomials | 115 | 87 |
| Jet | 115 | 577 |
| Jordan canonical form | 114 | 305 |
| Kakutani map | 113 | 83 |
| Kampé de Fériet functions | 118 | 203, 215, 337 |
| Kontorovich–Lebedev transform | 118 | 353 |
| Krylov subspace method | 114 | 305 |
| Lagrange interpolation | 116 | 23 |
| Laplace-type integral transforms | 118 | 241 |
| Lattice rules | 112 | 121, 147 |
| Layer potential | 115 | 269 |
| Least squares | 119 | 29 |

| | | |
|---|---|---|
| Least-squares approximations | 119 | 145 |
| Legendre basis | 119 | 145 |
| Legendre functions (not polynomials) | 118 | 261 |
| Legendre polynomials | 112 | 253 |
| Leray–Schauder fixed point theorem | 113 | 51 |
| Line search | 117 | 35 |
| Line search strategies | 114 | 367 |
| Linear quadratic tracking | 114 | 137 |
| Linear splines | 119 | 115 |
| Linear system of ODEs | 111 | 187 |
| Linearly implicit ODEs | 111 | 305 |
| Linnik distribution | 116 | 221 |
| Liouville and Erdelyi–Kober-type fractional integrals | 118 | 223 |
| Lipschitz constant | 114 | 367 |
| Little $q$-Laguerre polynomials | 118 | 1 |
| Littlewood's Tauberian Theorem for Abel summability | 118 | 261 |
| Local linear independence | 119 | 377 |
| Local support | 119 | 185 |
| Logarithmic norm | 111 | 49 |
| Loop integral | 115 | 93 |
| Low discrepancy sequences | 114 | 231 |
| Lower semicontinuous (l.s.c.) | 113 | 83 |
| Lyapunov function | 114 | 387 |
| | | |
| $M$-open map | 119 | 333 |
| MAP processes | 116 | 77 |
| Mass–spring–damper system | 114 | 291 |
| Matrix-Analytic Method | 116 | 77 |
| Maximal monotone operator | 113 | 51 |
| Maximum absolute error | 114 | 275 |
| McBride space | 118 | 151 |
| Measure chains | 113 | 365 |
| Meixner polynomials | 116 | 63 |
| Mellin transforms | 118 | 301 |
| Meromorphic functions | 118 | 323 |
| Minimal cubature formulae | 112 | 95 |
| Minkowski addition | 119 | 133 |
| Mittag–Leffler functions | 118 | 241 |
| | 118 | 283 |
| Mittag–Leffler distribution | 116 | 221 |
| Mixture | 116 | 221 |
| Modified Bessel function of the third kind | 118 | 223 |
| Modified Bessel-type integral transform | 118 | 151 |
| Moment problems | 114 | 103 |

| | | |
|---|---|---|
| Moments of order statistics | 117 | 85 |
| Mono-implicit Runge–Kutta method | 111 | 37 |
| Monotone extension | 119 | 333 |
| Monotone iterative technique | 113 | 17 |
| Monotonicity | 114 | 41 |
| Monte Carlo | 112 | 71 |
| Monte Carlo methods | 114 | 231 |
| Mortar spaces | 111 | 227 |
| Moving finite element | 115 | 169 |
| Multi-component domain | 111 | 253 |
| Multicomponent adsorption | 115 | 169 |
| Multidimensional approximation | 119 | 259 |
| Multidimensional | 112 | 181 |
| Multidimensional quadrature | 112 | 291 |
| Multifunction | 113 | 51 |
| Multigrid methods | 120 | 67 |
| Multilayers | 117 | 1 |
| Multilevel collocation | 119 | 161 |
| Multimap (map) | 113 | 83 |
| Multiple gamma functions | 118 | 87 |
| Multiple hypergeometric series | 118 | 337 |
| Multiple integration | 112 | 147 |
| Multiple integration rule | 112 | 21 |
| Multiple setpoint optimization | 120 | 59 |
| Multiple shooting | 120 | 197 |
| Multiplication theorems | 118 | 143 |
| Multiplicative anomaly | 118 | 125 |
| Multiplier technique | 114 | 1 |
| Multipoint boundary value problems | 113 | 227 |
| Multipoint iteration | 115 | 181 |
| Multipole expansion | 115 | 23 |
| Multiresolution | 119 | 29 |
| Multistep method | 111 | 123 |
| Multivariate Padé approximant | 115 | 255 |
| Multivariate splines | 119 | 97 |
| | | |
| Nash equilibrium | 113 | 83 |
| Nash iteration | 119 | 161 |
| NBSOR method | 114 | 275 |
| Neighborhood extension spaces | 113 | 283 |
| Networks of strings | 120 | 109 |
| Newton iteration | 119 | 161 |
| Newton iteration method | 115 | 283 |
| Newton | 116 | 275 |

| | | |
|---|---|---|
| Newton method | 111 | 173 |
| | 112 | 253 |
| | 115 | 357 |
| Newton's method | 116 | 195 |
| Nonhomogeneous beam | 114 | 1 |
| Nonlinear alternative | 113 | 1 |
| Nonlinear and nonlocal boundary value problem | 111 | 187 |
| Nonlinear biharmonic equation | 114 | 275 |
| Nonlinear Cauchy singular integral equation | 115 | 283 |
| Nonlinear DAE models | 120 | 1 |
| Nonlinear differential equations | 113 | 17 |
| Nonlinear elliptic boundary value problems | 115 | 309 |
| Nonlinear equations in Banach space | 115 | 181 |
| Nonlinear equations in Banach spaces | 114 | 405 |
| Nonlinear oscillations | 114 | 345 |
| Nonlinear programming | 120 | 41 |
| Nonlinear programming methods | 120 | 85 |
| Nonlinear systems | 115 | 357 |
| Nonlocal transition condition | 111 | 253 |
| Nonmonotonic technique | 117 | 35 |
| Nonsmooth analysis | 114 | 55 |
| Nonstandard coupling conditions | 115 | 151 |
| Nonuniform subdivision | 112 | 291 |
| Numerical analysis | 115 | 547 |
| Numerical cubature | 112 | 147 |
| Numerical integration | 111 | 123 |
| | 112 | 181, 201, 229, 291 |
| | 114 | 231 |
| Numerical method | 111 | 133 |
| Numerical methods for ODEs | 116 | 41 |
| | 115 | 601 |
| Numerical quadrature | 112 | 147 |
| Numerical range | 114 | 159 |
| Numerical solution | 115 | 193, 397 |
| Numerical solution of PDEs | 111 | 201 |
| Offset curves | 115 | 369 |
| Open map | 119 | 333 |
| Operational calculus | 118 | 111 |
| Operator norm | 119 | 209 |
| Operator refinement equation | 119 | 223 |
| Operator splitting | 111 | 201 |
| Optimal boundary control | 120 | 159 |

| | | |
|---|---|---|
| Optimal control | 114 | 41, 81 |
| | 120 | 27, 197 |
| Optimal control problems | 120 | 85 |
| Optimal design | 114 | 55 |
| Optimal location of sensors and actuators | 114 | 137 |
| Optimal nodes | 117 | 175 |
| Optimal value function | 114 | 103 |
| Optimality conditions | 114 | 173 |
| Optimization | 113 | 141 |
| | 120 | 109 |
| Optimum experimental design | 120 | 1 |
| Order selection strategy | 111 | 93 |
| Order stars | 111 | 93 |
| Order statistics | 117 | 85 |
| Order strategy | 111 | 113 |
| Ordinary differential equation | 113 | 267 |
| Ordinary differential equations | 113 | 241 |
| | 115 | 213 |
| Orthogonal flows | 115 | 121 |
| Orthogonal polynomial | 114 | 361 |
| Orthogonal polynomials | 114 | 217 |
| | 115 | 87 |
| | 116 | 243 |
| | 118 | 1, 23 |
| | 119 | 145 |
| Orthogonal projection | 119 | 209 |
| Otimal control | 120 | 109 |
| Output feedback | 114 | 137 |
| Padé approximant | 115 | 255 |
| Parabolic equation | 117 | 1 |
| Paracompact | 113 | 309 |
| Parallel numerical algorithms and architecture | 115 | 51 |
| Parallelism | 111 | 63 |
| | 115 | 547 |
| Parameter estimation | 120 | 1 |
| Parametric curves | 119 | 275 |
| Parametric optimization | 114 | 103 |
| Parametric surfaces | 119 | 275 |
| Partial differential equation | 115 | 397 |
| Partial differential equations problems depending on some parameters | 115 | 255 |
| Partially reduced SQP methods | 120 | 59, 67 |
| PDE | 114 | 387 |

| | | |
|---|---|---|
| Periodic problems | 115 | 547 |
| Periodic solutions | 113 | 123, 241 |
| | 114 | 345 |
| Periodic stability | 115 | 495 |
| Perturbation methods | 114 | 345 |
| Perturbed $\eta$-proximal point algorithm | 113 | 153 |
| Perturbed oscillator | 111 | 123 |
| Picard method | 111 | 173 |
| Piecewise linear splines | 119 | 185 |
| Planar Point Processes | 116 | 77 |
| Plancherel–Rotach asymptotics | 116 | 63 |
| Point control and observation | 114 | 121 |
| Pointwise control | 114 | 67 |
| Pointwise state constraints | 114 | 67 |
| Poisson structures | 111 | 147 |
| Polar coordinate | 114 | 275 |
| Polyhedra | 113 | 283 |
| Polyhedral metrics | 119 | 1 |
| Polynomial approximation | 115 | 169 |
| | 119 | 259 |
| Polynomial interpolation | 112 | 45 |
| Polynomial roots | 116 | 195 |
| Positive solutions | 113 | 227 |
| Potential fluid flow problem | 117 | 159 |
| Power | 116 | 93 |
| Preconditioning | 111 | 63 |
| Predictor–corrector methods | 111 | 113 |
| | 116 | 105 |
| Prewavelets | 119 | 185 |
| Probability measures | 118 | 311 |
| Profile | 115 | 577 |
| Pseudo-parallel curves | 115 | 369 |
| Pseudodifference operator | 115 | 397 |
| Quadratic groups | 115 | 357 |
| Quadratic programming | 119 | 249 |
| Quadrature formula | 112 | 45 |
| Quasi-Monte Carlo methods | 114 | 231 |
| Quasi-variational inequality | 113 | 83, 309 |
| Quintic spline | 115 | 495 |
| Radau IIA methods | 111 | 93 |
| Radial basis functions | 119 | 161 |
| Random summation | 116 | 221 |

| | | |
|---|---|---|
| Random variate generation | 116 | 221 |
| Rational interpolation | 114 | 319 |
| Rational spline | 117 | 121 |
| Real-time control | 120 | 85 |
| Rearrangements | 114 | 55 |
| Recurrence relation | 114 | 361 |
| | 115 | 181 |
| Recurrence relations | 114 | 405 |
| | 115 | 245 |
| Reduction formulae | 118 | 203 |
| Refinable function systems | 119 | 81 |
| Regularization | 118 | 193 |
| Rejection sampling | 114 | 231 |
| Resonance pole | 111 | 267 |
| Riemann and Hurwitz Zeta functions | 118 | 323 |
| Riemann's $\zeta$-function | 118 | 87 |
| Rényi's divergence | 116 | 93 |
| Root finding | 112 | 253 |
| Root-mean-square error | 114 | 275 |
| Rootfinding | 116 | 195 |
| Rotating beam | 114 | 103 |
| Rounding error analysis | 117 | 159 |
| Runge–Kutta method | 111 | 1, 49, 77 |
| | | |
| Sampling theorem | 118 | 193 |
| SC-stability | 111 | 113 |
| | 116 | 105 |
| Scalar integral equation | 115 | 269 |
| Scale-invariant solutions | 118 | 175 |
| Scaled polynomials | 116 | 63 |
| Scattered data interpolation | 119 | 249 |
| Scattered data | 112 | 181 |
| | 119 | 347 |
| Schauder fixed point theorem | 116 | 231 |
| Schrödinger equation | 115 | 535 |
| Schur complement reduction | 117 | 159 |
| Schwarz alternating method | 117 | 17 |
| Schwarz–Villat | 115 | 577 |
| Secant method | 115 | 245 |
| Second kind | 115 | 193 |
| Second-Grade fluid | 111 | 281 |
| Second-order differential equations | 118 | 311 |
| Second-order initial value problem | 115 | 495 |
| Second-order sufficient conditions | 120 | 85 |

| | | |
|---|---|---|
| Semi-discrete models | 120 | 109 |
| Semilinear parabolic equation | 114 | 41 |
| Sensitivity analysis | 120 | 85 |
| Sequential quadratic programming | 120 | 197 |
| Series representations | 118 | 323 |
| Set-valued functions | 119 | 133 |
| Shape optimization | 120 | 59 |
| Shape preservation | 119 | 133 |
| Shock | 111 | 297 |
| Shooting method | 115 | 213 |
| Shortley–Weller formula | 116 | 263 |
| Sidi transformation | 112 | 121 |
| Simulation | 116 | 93 |
| Sinc quadrature | 112 | 3 |
| Singular boundary value problem | 116 | 231 |
| Singular boundary value problems | 113 | 1 |
| Singular boundary-value problem | 111 | 173 |
| Singular integrands | 112 | 291 |
| Singular perturbation | 111 | 217 |
| | 116 | 121 |
| Singular radial solution | 113 | 329 |
| Singular solutions | 113 | 93 |
| Singular source term | 111 | 239 |
| Singular system | 114 | 305 |
| Size | 116 | 93 |
| Smoothing data | 115 | 35 |
| Smoothing $D^m$-splines | 115 | 369 |
| Smoothing | 116 | 145 |
| Sobolev orthogonal polynomials | 116 | 63 |
| | 118 | 1 |
| Sobolev space | 113 | 51 |
| Sobolev-type Gegenbauer polynomials | 118 | 23 |
| Solenoid | 118 | 215 |
| Solvability of stage equation | 111 | 25 |
| Sparse nonlinear programming | 120 | 27 |
| Spatial discretization | 111 | 305 |
| Special functions | 118 | 111 |
| Spectral methods | 117 | 61 |
| Sphere | 112 | 95 |
| Spline | 116 | 145 |
| spline space | 119 | 209 |
| Spline subdivision | 119 | 133 |
| Splines | 119 | 377 |
| Square iterative root | 115 | 331 |

| | | |
|---|---|---|
| Stability criteria | 117 | 137 |
| Stability | 111 | 37 |
| | 115 | 283, 565 |
| Stability region | 111 | 113 |
| Stable law | 116 | 221 |
| Starting algorithm | 111 | 77 |
| Steep moving front | 115 | 169 |
| Steepest descent | 114 | 367 |
| Stepsize strategy | 111 | 113 |
| | 116 | 105 |
| Stiff differential equations | 111 | 93 |
| Stiffness | 111 | 63 |
| Stirling's formula | 118 | 323 |
| Stokes equation | 114 | 333 |
| Stokes multiplier | 118 | 43 |
| Stokes system | 111 | 281 |
| Stream-function and vorticity | 117 | 61 |
| String equation | 114 | 11 |
| Störmer–Cowell methods | 115 | 547 |
| Structural acoustics | 114 | 121 |
| Structured matrices | 114 | 319 |
| Sturm–Liouville problem | 115 | 535 |
| Subcritical condition | 113 | 329 |
| Subdivision | 119 | 29, 81 |
| Subsolution | 111 | 173 |
| Substructuring | 116 | 201 |
| Successive approximations method | 115 | 51 |
| Superconvergence | 116 | 263 |
| Supersolution | 111 | 173 |
| Support functions | 119 | 133 |
| Support | 119 | 377 |
| Surface reconstruction | 119 | 1 |
| Surface tension | 116 | 157 |
| Surface water waves | 116 | 157 |
| Surfaces | 119 | 29 |
| Surjective operator | 113 | 51 |
| Symbolic integration | 118 | 71 |
| Symmetric indefinite linear systems | 117 | 159 |
| System of difference equations | 113 | 167 |
| Tension methods | 119 | 275 |
| Tensor product space | 119 | 377 |
| Thin domains | 113 | 123 |
| Third-order method | 115 | 181 |

| | | |
|---|---|---|
| Thresholding | 119 | 185 |
| Time integration | 116 | 275 |
| Time-optimal control | 114 | 103 |
| Time-parametric auxiliary problem | 114 | 103 |
| Timoshenko beam | 114 | 23 |
| Titchmarsh transform | 118 | 353 |
| Topological convexity structures | 113 | 283 |
| Topological degree | 114 | 387 |
| Topological vector space | 113 | 309 |
| | 119 | 333 |
| Topology optimization | 120 | 67 |
| Totally bounded | 113 | 309 |
| Trace regularity | 114 | 121 |
| Training algorithm | 114 | 367 |
| Trajectory optimization | 120 | 27 |
| Transformation formulas | 118 | 337 |
| Transmission problem | 116 | 167 |
| Transonic cascade flow | 120 | 59 |
| Transport equation | 111 | 281 |
| Triangular finite element | 115 | 383 |
| Triangulation | 119 | 347 |
| Triangulations | 119 | 97, 185 |
| Tricomi confluent hypergeometric function | 118 | 223 |
| Trigonometric sums | 118 | 323 |
| Trivial shape | 113 | 283 |
| Truncation and round-off error | 111 | 13 |
| Trust region | 117 | 35 |
| Tunnel effects in PDEs | 113 | 93 |
| Turbine and compressor S1-streamsurface blade design | 120 | 59 |
| Turbine blade optimization | 120 | 67 |
| Two-dimensional cubature | 112 | 121 |
| Two-point iteration | 114 | 405 |
| Ultra-hyperbolic operator | 115 | 301 |
| Unconstrained optimization | 114 | 367 |
| Uniform decay of energy | 114 | 1 |
| Uniform stabilization | 114 | 189 |
| Unitary system | 111 | 133 |
| Upper and lower solutions | 113 | 1, 1 |
| Upper semicontinuous (u.s.c.) | 113 | 83 |
| Vandermonde | 114 | 319 |
| Variable transformation | 112 | 229 |
| Variable transformations | 115 | 193 |

| | | |
|---|---|---|
| Variational curve and surface | 116 | 145 |
| Variational problem | 115 | 269 |
| Vector valued functions | 115 | 151 |
| Vibration | 114 | 291 |
| Viscoplastic contact | 115 | 63 |
| Volterrra and Fredholm integral equations | 115 | 193 |
| von Neumann intersection theorem | 113 | 83 |
| | | |
| $W$-transformation | 111 | 63 |
| Wastewater treatment | 114 | 67 |
| Wave equation | 113 | 123 |
| Wave propagation | 114 | 291 |
| Wavelet spaces | 119 | 185 |
| Wavelets | 115 | 35 |
| | 119 | 29, 29 |
| Waves | 111 | 297 |
| Weakly biharmonic | 115 | 269 |
| Weber–Schafheitlin integral and its generalizations | 118 | 301 |
| Weibull distribution | 117 | 85 |
| Weighted Euler integrator | 111 | 147 |
| Weighted rational interpolation | 117 | 121 |
| Wright functions | 118 | 175 |
| | | |
| Zeta function | 118 | 125 |